

AMENDMENTS TO THE CLAIMS

The following is a complete, marked up listing of revised claims with a status identifier in parentheses, underlined text indicating insertions, and strikethrough and/or double-bracketed text indicating deletions.

1. (Currently Amended) A liquid crystal display, comprising:
 - a memory storing, until a next time, current data indicating current brightness of each pixel provided in a liquid crystal panel;
 - a look-up table precedently storing (i) combinations of previous data and the current data, the combinations having possibilities to be inputted, and (ii) output signals corresponding to the respective combinations;
 - control means for outputting an output signal as corrected current data in order to facilitate grayscale transition from a previous time to a current time, by reading out, from the look-up table, data corresponding to a combination of previous data read out from the memory and current data, and outputting that data or that data after being interpolated, instead of the current data;
 - a heater heating the liquid crystal panel, the heater including a plurality of heater electrodes, each of the plurality of heater electrodes being formed as a linear band aligned to be in parallel with a side of the liquid crystal panel; and
 - heater control means for controlling start and stop of heating by the heater, in such a manner as to keep a sensed temperature of the liquid crystal panel to be not more than $\pm 3^{\circ}\text{C}$ of a predetermined target temperature which is

within a range between 33°C and 63°C, the sensed temperature of the liquid crystal panel being determined by sensing a temperature of a plurality of separate sections of the liquid crystal panel.

2. (Original) The liquid crystal display as defined in claim 1, wherein, a number of the look-up table is one.

3. (Original) The liquid crystal display as defined in claim 1, wherein, the look-up table is arranged so as to correspond to the target temperature.

4. (Original) The liquid crystal display as defined in claim 1, wherein, the target temperature is determined to be within a range between 48°C and 63°C.

5. (Original) The liquid crystal display as defined in claim 2, wherein, the target temperature is determined to be within a range between 48°C and 63°C.

6. (Original) The liquid crystal display as defined in claim 1, wherein, the liquid crystal panel includes a liquid crystal cell in vertical align mode and is driven in normally black mode.

7. (Currently Amended) A liquid crystal display, comprising:
a memory storing, until a next time, current data indicating
current brightness of each pixel provided in a liquid crystal panel;

a look-up table precedently storing (i) combinations of previous data and the current data, the combinations having possibilities to be inputted, and (ii) output signals corresponding to the respective combinations;

control means for outputting an output signal as corrected current data in order to facilitate grayscale transition from a previous time to a current time, by reading out, from the look-up table, data corresponding to a combination of previous data read out from the memory and current data, and outputting that data or that data after being interpolated, instead of the current data;

a heater heating the liquid crystal panel, the heater including a plurality of heater electrodes, each of the plurality of heater electrodes being formed as a linear band aligned to be in parallel with a side of the liquid crystal panel; and

heater control means for controlling the heater so as to either stop the heating by the heater when a sensed temperature of the liquid crystal panel exceeds a threshold value which is 1°C through 1.5°C higher than a target temperature, or start the heating by the heater when the sensed temperature of the liquid crystal panel goes below a threshold value which is 1°C through 1.5°C lower than the target temperature, the target temperature being determined in advance to be in a range between 33°C and 63°C; wherein

the sensed temperature of the liquid crystal panel is determined by sensing a temperature of a plurality of separate sections of the liquid crystal panel.

8. (Original) The liquid crystal display as defined in claim 7, wherein, a number of the look-up table is one.

9. (Original) The liquid crystal display as defined in claim 7, wherein, the look-up table is arranged so as to correspond to the target temperature.

10. (Original) The liquid crystal display as defined in claim 7, wherein, the target temperature is determined to be within a range between 48°C and 63°C.

11. (Original) The liquid crystal display as defined in claim 8, wherein, the target temperature is determined to be within a range between 48°C and 63°C.

12. (Original) The liquid crystal display as defined in claim 7, wherein, the liquid crystal panel includes a liquid crystal cell in vertical align mode and is driven in normally black mode.

13. (Currently Amended) A liquid crystal display, comprising:
a memory storing, until a next time, current data indicating current brightness of each pixel provided in a liquid crystal panel;

a look-up table precedently storing (i) combinations of previous data and the current data, the combinations having possibilities to be inputted, and (ii) output signals corresponding to the respective combinations;

control means for outputting an output signal as corrected current data in order to facilitate grayscale transition from a previous time to a current time, by reading out, from the look-up table, data corresponding to a combination of previous data read out from the memory and current data, and outputting that data or that data after being interpolated, instead of the current data;

a heater heating the liquid crystal panel, the heater including a plurality of heater electrodes, each of the plurality of heater electrodes being formed as a linear band aligned to be in parallel with a side of the liquid crystal panel; and

heater control means for controlling start and stop of heating by the heater, in such a manner as to keep a difference between a sensed temperature of the liquid crystal panel and a target temperature to be not more than a predetermined threshold value, the target temperature being a temperature at which, by facilitating the grayscale transition by the control means, each pixel is virtually able to reach a desired grayscale level in every grayscale level transition,

the threshold value being set in such a manner as to keep a difference between a grayscale level at which a pixel reaches as a result of the grayscale level correction by the control means and a target grayscale level to be within an allowable range; wherein

the sensed temperature of the liquid crystal panel is determined by sensing a temperature of a plurality of separate sections of the liquid crystal panel.

14. (Original) The liquid crystal display as defined in claim 13, wherein, a number of the look-up table is one.

15. (Original) The liquid crystal display as defined in claim 13, wherein, the look-up table is arranged so as to correspond to the target temperature.

16. (Original) The liquid crystal display as defined in claim 13, wherein, the target temperature is determined to be within a range between 33°C and 63°C.

17. (Original) The liquid crystal display as defined in claim 14, wherein, the target temperature is determined to be within a range between 33°C and 63°C.

18. (Original) The liquid crystal display as defined in claim 13, wherein, the target temperature is determined to be within a range between 48°C and 63°C.

19. (Original) The liquid crystal display as defined in claim 14, wherein, the target temperature is determined to be within a range between 48°C and 63°C.

20. (Original) The liquid crystal display as defined in claim 13, wherein, the allowable range is such a range that an error between a target brightness and a brightness obtained as a result of the grayscale transition to the current time is not more than $\pm 20\%$.

21. (Original) The liquid crystal display as defined in claim 14, wherein, the allowable range is such a range that an error between a target brightness and a brightness obtained as a result of the grayscale transition to the current time is not more than $\pm 20\%$.

22. (Original) The liquid crystal display as defined in claim 13, wherein, the liquid crystal panel includes a liquid crystal cell in vertical align mode and is driven in normally black mode.

23. (Previously Presented) The liquid crystal display as defined in claim 1, wherein, the heater control means controls start and stop of heating by the heater irrespective of ambient temperature.

24. (Previously Presented) The liquid crystal display as defined in claim 1, wherein the heater control means comprises:

a plurality of temperature sensors, each of the plurality of temperature sensors being configured to sense the temperature of a separate section of the liquid crystal panel.